

## Zehang (Richard) Li

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## Academic Appointments and Affiliations

- 2020 - present Assistant Professor, Department of Statistics, University of California Santa Cruz
- 2023 - present Faculty Affiliate, Berkeley Population Center (BPC), University of California Berkeley
- 2023 - present Faculty Affiliate, Center on the Economics and Demography of Aging (CEDA), University of California Berkeley
- 2023 - present External Affiliate, Center for Studies in Demography and Ecology (CSDE), University of Washington
- 2021 - present Faculty Affiliate, Global and Community Health (GCH), University of California Santa Cruz
- 2018 - 2020 Postdoctoral Associate, Department of Biostatistics, Yale School of Public Health

## Education

- 2018 Ph.D. in Statistics, University of Washington
- 2013 B.Sc. in Risk Management Science, The Chinese University of Hong Kong

## Honors and Awards

- 2022 Hellman Fellow, University of California
- 2018 Student Paper Award, Section on Bayesian Statistical Science of the ASA
- 2016 Travel Award, University of Washington Center for Statistics and the Social Sciences
- 2013 Blalock Fellowships, University of Washington Center for Statistics and the Social Sciences
- 2012 Dragon Crowd SCHIESSE International Exchange Scholarships
- 2012 Shaw College Scholarship for Outgoing Exchange Students
- 2009 Scholarship for Excellent Mainland Student (four years tuition fee and living expense)

## Grants

- Sept 2023 – Aug 2028 *Bayesian Mortality Estimation from Disparate Data Sources* (NIH R01HD112421).  
Funding Organization: National Institutes of Health (NIH).  
Principal Investigator: Jon Wakefield.  
Role: Co-Investigator. (Principal Investigator on Subaward.)  
Total: \$108,160. (Prime Total: \$1,822,940)

- Aug 2023 – Jul 2025 *Farmworker Community Health Vulnerabilities and Responses Amid Climate Change.*  
Funding Organization: University of California Office of the President (UCOP).  
Principal Investigator: Matthew Spark.  
Role: Co-Investigator.  
Total: \$1,998,863.
- Aug 2022 – Jan 2025 *Reference Death Archive.*  
Funding Organization: Ohio State University (Prime: Melinda and Bill Gates Foundation).  
Principal Investigator: Samuel Clark.  
Role: Principal Investigator on Subaward.  
Total: \$312,231. (Prime Total: \$2,042,450)
- Sept 2022 – Aug 2024 *Developing an Innovative Statistical Framework to Integrate Multiple Verbal Autopsy Datasets to Estimate Cause-specific Mortality (NIH R03HD110962).*  
Funding Organization: National Institutes of Health (NIH).  
Principal Investigator: Zehang Li.  
Role: Principal Investigator.  
Total: \$149,979.
- Sep 2022 – Aug 2023 *Objective Bayes 2022 Methodology Conference.*  
Funding Organization: National Science Foundation (NSF).  
Principal Investigator: Paul Parker.  
Role: Co-Principal Investigator.  
Total: \$10,000.
- Jul 2022 – Jun 2023 *Towards Adaptive Verbal Autopsy Survey Design.*  
Funding Organization: The Hellman Fellows Program.  
Principal Investigator: Zehang Li.  
Role: Principal Investigator.  
Total: \$10,000.
- Jun 2022 – Jun 2023 *Estimating Mortality Rates of Emerging Diseases Using Verbal Autopsies.*  
Funding Organization: UCSC Committee on Research (COR).  
Principal Investigator: Zehang Li.  
Role: Principal Investigator.  
Total: \$2,000.
- Apr 2022 – May 2023 *Development and Validation of Verbal Autopsy Algorithms Using openVA Tools.*  
Funding Organization: Ohio State University (Prime: CDC Foundation)  
Principal Investigator: Samuel Clark.

Role: Principal Investigator on Subaward.

Total: \$158,717. (Prime Total: \$325,854)

Apr 2022 – Dec 2022 *Validation of a Portable Molecular Diagnostic System for SARS-COV-2 for Point-of-Care.*

Funding Organization: Alianza UCMX.

Principal Investigator: Zehang Li (transferred from Claudia Wehrhahn Cortes).

Role: Principal Investigator.

Total: \$12,500.

May 2021 – Dec 2021 *COVID-19 Rapid Mortality Surveillance Methods Development.*

Funding Organization: Ohio State University (Prime: Vital Strategies).

Principal Investigator: Samuel Clark.

Role: Principal Investigator on Subaward.

Total: \$73,985. (Prime Total: \$131,773 )

## Scholarly and Creative Work highlighted are **student advisees**.

### Journal Articles

21. Zhenke Wu, **Zehang R Li**, Irena Chen, and Mengbing Li. [Tree-informed Bayesian multi-source domain adaptation: cross-population probabilistic cause-of-death assignment using verbal autopsy.](#) *Biostatistics*, In Press
20. **Zehang R Li**, Zhenke Wu, Irena Chen, and Samuel J Clark. [Bayesian nested latent class models for cause-of-death assignment using verbal autopsies across multiple domains.](#) *Annals of Applied Statistics*, In Press
19. Samuel J Clark Diane Morof Jané D. Joubert Chodziwadziwa Kabudula **Zehang R Li** Pam Groenewald, Jason Thomas and Debbie Bradshaw. [Agreement between cause of death assignment by computer-coded verbal autopsy methods and physician coding of verbal autopsy interviews in South Africa.](#) *Global Health Action*, 16(1):2285105, 2023. PMID: 38038664
18. **Zehang R Li**, Jason Thomas, Eungang Choi, Tyler H. McCormick, and Samuel J Clark. [The openVA toolkit for verbal autopsies.](#) *The R Journal*, pages 316–334, 2023.
17. Daniel Chandramohan, Edward Fottrell, Jordana Leitao, Erin Nichols, Samuel J. Clark, Carine Alsokhn, Daniel Cobos Munoz, Carla AbouZahr, Aurelio Di Pasquale, Robert Mswia, Eungang Choi, Frank Baiden, Jason Thomas, Isaac Lyatuu, **Zehang R Li**, Patrick Larbi-Debrah, Yue Chu, Samuel Cheburet, Osman Sankoh, Azza Mohamed Badr, Doris Ma Fat, Philip Setel, Robert Jakob, and Don de Savigny. [Estimating causes of death where there is no medical certification: evolution and state of the art of verbal autopsy.](#) *Global Health Action*, 14(sup1):1982486, 2021
16. Forrest W. Crawford, Sydney A. Jones, Matthew Cartter, Samantha G. Dean, Joshua L. Warren, **Zehang R Li**, Jacqueline Barbieri, Jared Campbell, Patrick Kenney, Thomas Valleau, and Olga Morozova. [Impact of close interpersonal contact on COVID-19 incidence: evidence from one year of mobile device data.](#) *Science Advances*, 8(1):eabi5499, 2022
15. Abigail Norris Turner, David Kline, Alison Norris, W. Gene Phillips, Elisabeth Root, Jonathan Wakefield, **Zehang R Li**, Stanley Lemeshow, Morgan Spahnle, Amanda Luff, Yue Chu, Mary Kate Francis, Maria Gallo, Payal Chakraborty, Megan Lindstrom, Gerard Lozanski, William Miller, and

- Samuel Clark. [Prevalence of current and past COVID-19 in Ohio adults](#). *Annals of Epidemiology*, 67:50–60, 2022
14. Yunhan Wu, **Zehang R Li**, Benjamin K. Mayala, Houjie Wang, Peter Gao, Johnny Paige, Geir-Arne Fuglstad, Caitlin Moe, Jessica Godwin, Rose E. Donohue, Trevor N. Croft, and Jon Wakefield. [Spatial modeling for subnational administrative level 2 small-area estimation](#). *DHS Spatial Analysis Reports No. 21*. Rockville, Maryland, USA: ICF., 2021
  13. Olga Morozova, **Zehang R Li**, and Forrest W. Crawford. [One year of modeling and forecasting COVID-19 transmission to support policymakers in Connecticut](#). *Scientific reports*, 11, 2021
  12. David Kline, **Zehang R Li**, Yue Chu, Jon Wakefield, William C. Miller, Abigail Norris Turner, and Samuel J. Clark. [Estimating seroprevalence of SARS-CoV-2 in Ohio: A Bayesian multilevel poststratification approach with multiple diagnostic tests](#). *Proceedings of the National Academy of Sciences*, 118(26), 2021
  11. **Zehang R Li**, Tyler H McCormick, and Samuel J Clark. [Using Bayesian latent Gaussian graphical models to infer symptom associations in verbal autopsies](#). *Bayesian Analysis*, 15(3):781, 2020.
  10. Tsuyoshi Kuniyama, **Zehang R Li**, Samuel J Clark, and Tyler H McCormick. [Bayesian factor models for probabilistic cause of death assessment with verbal autopsies](#). *The Annals of Applied Statistics*, 14(1):241–256, 03 2020.
  9. **Zehang R Li**, Tyler H McCormick, and Samuel J Clark. [Non-confirming replication of “Performance of InSilicoVA for assigning causes of death to verbal autopsies: multisite validation study using clinical diagnostic gold standards”](#), *BMC Medicine* 2018; 16:56. *BMC Medicine*, 18(1):1–5, 2020.
  8. **Zehang R Li** and Tyler H McCormick. [An Expectation Conditional Maximization approach for Gaussian graphical models](#). *Journal of Computational and Graphical Statistics*, 28(4):767–777, 2019.
  7. **Zehang R Li**, Evaline Xie, Forrest W Crawford, Joshua L Warren, Kathryn McConnel, Tyler Copple, Tyler Johnson, and Gregg S Gonsalves. [Suspected heroin-related overdose incidents in Cincinnati, Ohio: a spatiotemporal analysis](#). *PLOS Medicine*, 16(11):1–15, 11 2019.
  6. **Zehang R Li**, Yuan Hsiao, Jessica Godwin, Bryan D Martin, Jon Wakefield, and Samuel J Clark. [Changes in the spatial distribution of the Under-Five Mortality Rate: Small-area analysis of 122 DHS surveys in 262 subregions of 35 countries in Africa](#). *PLOS ONE*, 14(1):e0210645, 2019.
  5. Prabhat Jha, Dinesh Kumar, Rajesh Dikshit, Atul Budukh, Rehana Begum, Prabha Sati, Patrycja Kolpak, Richard Wen, Shyamsundar J. Raithatha, Utkarsh Shah, **Zehang R Li**, Lukasz Aleksandrowicz, Prakash Shah, Kapila Piyasena, Tyler H. McCormick, Hellen Gelband, and Samuel J. Clark. [Automated versus physician assignment of cause of death for verbal autopsies: randomized trial of 9374 deaths in 117 villages in India](#). *BMC Medicine*, 17(1):116, 2019.
  4. Georges Reniers, Sylvia Blom, Judith Lieber, Abraham J Herbst, Clara Calvert, Jacob Bor, Till Barnighausen, Basia Zaba, **Zehang R Li**, Samuel J Clark, Alison D. Grant, Richard Lessells, Jeffrey W. Eaton, and Victoria Hosegood. [Tuberculosis mortality and the male survival deficit in rural South Africa: an observational community cohort study](#). *PLOS ONE*, 12(10):e0185692, 2017.
  3. Georges Reniers, Sylvia Blom, Clara Calvert, Alexandra Martin-Onraet, Abraham J Herbst, Jeffrey W Eaton, Jacob Bor, Emma Slaymaker, **Zehang R Li**, and Samuel J Clark. [Trends in the burden of HIV mortality after roll-out of antiretroviral therapy in KwaZulu-Natal, South Africa: an observational community cohort study](#). *The Lancet HIV*, 4(3):e113–e121, 2017.

2. Tyler H McCormick, **Zehang R Li**, Clara Calvert, Amelia C Crampin, Kathleen Kahn, and Samuel J Clark. [Probabilistic cause-of-death assignment using verbal autopsies](#). *Journal of the American Statistical Association*, 111(515):1036–1049, 2016.
1. Ngai Hang Chan, **Zehang R Li**, and Chun Yip Yau. [Forecasting online auctions via self-exciting point processes](#). *Journal of Forecasting*, 33(7):501–514, 2014.

## Conference Proceedings

2. **Toshiya Yoshida**, Trinity Shuxian Fan, Tyler McCormick, Zhenke Wu, and **Zehang R Li**. [Bayesian active questionnaire design for cause-of-death assignment using verbal autopsies](#). In *Proceedings of the Conference on Health, Inference, and Learning*, volume 209 of *Proceedings of Machine Learning Research*, pages 37–49. PMLR, 22 Jun–24 Jun 2023.
  - Selected as Oral Presentation (top 13%)
1. **Zehang R Li**, Tyler H McCormick, and Samuel J Clark. [Bayesian joint spike-and-slab graphical lasso](#). In *Proceedings of the 36th International Conference on Machine Learning*, volume 97 of *Proceedings of Machine Learning Research*, pages 3877–3885, Long Beach, California, USA, 09–15 Jun 2019. PMLR.

## Working Papers

8. **Yu Zhu** and **Zehang R Li**. Hierarchical latent class models for mortality surveillance using partially verified verbal autopsies. *Working paper*, 2024
7. **Sho Kawano**, Paul A Parker, and **Zehang R Li**. [Spatially Selected and Dependent Random Effects for Small Area Estimation with Application to Rent Burden](#). *arXiv preprint arXiv:2404.12463*, 2024
6. Tsuyoshi Kuniyama, **Zehang R Li**, Samuel J Clark, and Tyler H McCormick. [Bayesian analysis of verbal autopsy data using factor models with age-and sex-dependent associations between symptoms](#). *arXiv preprint arXiv:2403.12288*, 2024
5. **Yu Zhu**, **Zehang R Li**, Yang Su, and Zhenyu Zhao. [Treatment Effect Estimation Amidst Dynamic Network Interference in Online Gaming Experiments](#). *arXiv preprint arXiv:2402.05336*, 2024
4. Geir-Arne Fuglstad, **Zehang R Li**, and Jon Wakefield. [The two cultures for prevalence mapping: small area estimation and spatial statistics](#). *Submitted*, 2021
3. **Zehang R Li**, Bryan D Martin, Tracy Qi Dong, Geir-Arne Fuglstad, Jessica Godwin, John Paige, Andrea Riebler, Samuel J Clark, and Jon Wakefield. [Space-time smoothing of demographic and health indicators using the R package SUMMER](#). *Submitted*, 2020
2. Samuel J. Clark, Martin W. Bratschi, Philip Setel, Carla Abouzahr, Don de Savigny, **Zehang R Li**, Tyler McCormick, Peter Byass, and Daniel Chandramohan. [Verbal autopsy in Civil Registration and Vital Statistics: the symptom-cause information archive](#). *arXiv: 1910.00405*, 2019.
1. Samuel J Clark, **Zehang R Li**, and Tyler H McCormick. [Quantifying the contributions of training data and algorithm logic to the performance of automated cause-assignment algorithms for verbal autopsy](#). *arXiv: 1803.07141*, 2018.

## Other Technical Reports

2. Forrest W. Crawford, **Zehang R Li**, and Olga Morozova. [COVID-19 projections for reopening Connecticut](#). *medRxiv*, 2020
1. **Zehang R Li**, Tyler H McCormick, and Samuel J Clark. [InterVA4: an R package to analyze verbal autopsy data](#). *Center for Statistics and the Social Sciences Working Paper, No.146*, 2014.

## Publicly available software

9. Author of `surveyPrev`, an R package for mapping the prevalence of binary indicators using survey data in small areas. Available at <https://cran.r-project.org/web/packages/surveyPrev/index.html>.
8. Author and maintainer of `SUMMER`, an R package for space-time smoothing of demographic and health indicators using survey data. Available at <https://cran.r-project.org/web/packages/SUMMER/index.html>.
7. Author and maintainer of `openVA`, an R package for processing and coding verbal autopsy data. Available at <https://cran.r-project.org/web/packages/openVA/index.html>.
6. Author of `openVA-App`, an R Shiny package for using openVA. Available at [https://github.com/verbal-autopsy-software/openVA\\_App](https://github.com/verbal-autopsy-software/openVA_App).
5. Author and maintainer of `InSilicoVA`, an R package for probabilistic cause-of-death assignment using InSilicoVA algorithm. Available at <https://cran.r-project.org/web/packages/InSilicoVA/index.html>.
4. Author of `InterVA5`, an R package for cause-of-death assignment using InterVA-5 software. Available at <https://cran.r-project.org/web/packages/InterVA5/index.html>.
3. Author and maintainer of `InterVA4`, an R package for cause-of-death assignment using InterVA-4 software. Available at <https://cran.r-project.org/web/packages/InterVA4/index.html>.
2. Author of `CrossVA`, an R package for verbal autopsy data transform. Available at <https://cran.r-project.org/web/packages/CrossVA/index.html>.
1. Author and maintainer of `Tariff`, an R package for cause-of-death assignment using Tariff method. Available at <https://cran.r-project.org/web/packages/Tariff/index.html>

## Professional Activities

### Invited Presentations in Conferences and Professional Meeting

- Sept 2024 *Model validation for small area estimation models using complex survey data*, GEOMED, Hasselt, Belgium
- Aug 2024 *Domain adaptive cause-of-death assignment using verbal autopsies under distribution shift*, Joint Statistical Meetings, Portland, OR, USA
- Jul 2024 *Domain adaptive cause-of-death assignment using verbal autopsies under distribution shift*, International Conference on Econometrics and Statistics (EcoSta), Beijing, China
- Jun 2024 *Domain adaptive cause-of-death assignment using verbal autopsies under distribution shift*, ICSA Applied Statistics Symposium, Nashville, TN, USA
- Jun 2024 *Bayesian latent class model for domain-adaptive cause-of-death assignment using verbal autopsies*, Annual Meeting of the WNAR/IMS, Fort Collins, CO, USA

- May 2024 *Domain adaptive mortality surveillance using verbal autopsies,*  
International Association of Official Statistics conference, Mexico City, Mexico
- April 2024 *Domain adaptive mortality surveillance using verbal autopsies,*  
Statistical Methods for Infectious Disease Across Scales Workshop, State College, PA
- Aug 2023 *A Bayesian hierarchical model for mortality surveillance using partially verified verbal autopsy data,*  
International Conference on Econometrics and Statistics (EcoSta), Online
- Jun 2023 *Bayesian active questionnaire design for verbal autopsies,*  
Annual Meeting of the WNAR/IMS, Anchorage, AK, USA
- Jun 2023 *A Bayesian hierarchical model for mortality surveillance using partially verified verbal autopsy data,*  
ICSA Applied Statistics Symposium, Ann Arbor, MI, USA
- May 2023 *Towards robust and generalizable cause-of-death assignment algorithms using verbal autopsies,*  
IDM Annual Symposium, Seattle, WA, USA
- Mar 2023 *Latent class models for prevalence estimation of emerging diseases using verbal autopsies,*  
ENAR Spring meeting, Nashville, TN, USA
- Dec 2022 *Across-domain generalizability of verbal autopsy studies,*  
International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics), Online
- Aug 2022 *Bayesian latent class model for multi-source domain adaptation,*  
Joint Statistical Meetings, Washington DC, USA (Topic-contributed)
- Jun 2022 *Mapping the prevalence of demographic and health indicators using household surveys,*  
Annual Meeting of the WNAR/IMS, Online
- Jun 2022 *Bayesian latent class model for multi-source domain adaptation,*  
International Conference on Econometrics and Statistics (EcoSta), Online
- Aug 2021 *Bayesian latent class models for verbal autopsy data from multiple domains,*  
Joint Statistical Meetings, Online (Topic-contributed)
- Dec 2020 *Bayesian latent class models for verbal autopsy data from multiple domains,*  
ICSA Applied Statistics Symposium, Online
- Aug 2020 *Modeling symptom associations in verbal autopsy data,*  
Joint Statistical Meetings, Online
- Mar 2020 *Modeling heroin-related EMS calls in space and time,*  
ENAR Spring Meeting, Online
- Dec 2019 *Bayesian approach to assess intervention effects on overdose incidents in space and time,*  
ICSA International Conference, Hangzhou, China
- Aug 2019 *Item reduction approach to the WHO VA instrument,*  
WHO Verbal Autopsy Reference Group Meeting, Lisbon, Portugal
- Jul 2019 *VA computer automated methods,*  
COMSA Review Meeting, Baltimore, MD, USA
- Jul 2019 *Bayesian approach to assess intervention effects on overdose incidents in space and time,*  
Eastern Asia Meeting on Bayesian Statistics, Kobe, Japan

- May 2019 *Bayesian approach to assess intervention effects on overdose incidents in space and time*,  
New England Statistical Symposium, Hartford, CT, USA
- Dec 2018 *Towards better understanding of cause of death assignment using verbal autopsies*,  
Workshop on Mortality Monitoring in the Era of the SDGs, Rostock, Germany
- Aug 2018 *Bayesian latent Gaussian graphical models for mixed data*,  
Joint Statistical Meetings, Vancouver, BC, Canada (Topic-contributed)
- Dec 2017 *Introduction to openVA*,  
Verbal Autopsy in Civil Registration and Vital Statistics Systems Meeting. Accra, Ghana
- Jan 2017 *Introduction to openVA*,  
Technical meeting on openVA and the way forward for in-country verbal autopsy analysis support. Columbus, OH, USA
- Mar 2016 *Introduction to openVA*,  
WHO Verbal Autopsy Working Group Meeting, Geneva, Switzerland

### Contributed Presentations

- Apr 2024 *Bayesian nested latent class models for cause-of-death assignment using verbal autopsies across multiple domains*,  
Population Association of America Annual Meeting, Columbus, OH, USA, Refereed
- Jun 2022 *Bayesian nested latent class models for cause-of-death assignment using verbal autopsies across multiple domains*,  
Symposium on Data Science and Statistics, Pittsburgh, PA, USA, Refereed
- Aug 2019 *Bayesian approach to assess intervention effects on overdose incidents in space and time*,  
Joint Statistical Meetings, Denver, CO, USA, Contributed
- Jun 2019 *Bayesian joint spike-and-slab graphical lasso*,  
International Conference on Machine Learning, Long Beach, CA, USA
- Aug 2016 *Discovering Structures in Massive Graphs using Egocentric Motifs*,  
Joint Statistical Meetings, Chicago, IL, USA,
- Aug 2015 *Sparse coding of local network structure in large, dynamic networks*,  
Joint Statistical Meetings, Seattle, WA, USA,

### Departmental Seminars

- Dec 2023 Department of Biostatistics and Data Science, Wake Forest University, Online.
- Nov 2023 Department of Statistics, Pennsylvania State University, State College, PA, USA.
- Apr 2023 Berkeley Population Center, University of California Berkeley, Berkeley, CA, USA
- Nov 2022 Department of Mathematics and Statistics, San Jose State University, San Jose, CA, USA
- Sep 2021 Department of Data Sciences and Operations, University of Southern California, Los Angeles, CA, USA
- Nov 2020 Department of Statistics, University of California Santa Cruz, Online
- Mar 2020 Biostatistics Branch, Division of Cancer Epidemiology and Genetics, National Cancer Institute, Online
- Mar 2020 Department of Biostatistics and Data Science Initiative, Brown University, Providence, RI, USA



- Feb 2020 Department of Biostatistics, Johns Hopkins University, Baltimore, MD, USA
- Jan 2020 Department of Statistics, University of California Santa Cruz, Santa Cruz, CA, USA
- Jan 2020 Department of Statistics, University of California Irvine, Irvine, CA, USA

### Posters Presented at Professional Meetings

- Jun 2019 *Bayesian joint spike-and-slab graphical lasso*,  
International Conference on Machine Learning, Long Beach, CA, USA, ,
- Aug 2018 *Bayesian joint spike-and-slab graphical lasso*,  
Joint Statistical Meetings, Vancouver, BC, Canada
- Feb 2016 *Probabilistic cause-of-death assignment using verbal autopsies*,  
UW Data Science Networking, Seattle, WA, USA,
- Jul 2013 *Forecasting online auctions via self-exciting point processes*,  
ISI Young Statisticians' Meeting, Hong Kong,

### Organizing and Chairing Sessions in Professional Meetings

- Aug 2024 Invited session organizer, Statistical methods for heterogeneous data and distribution shift, Portland, OR, USA
- Aug 2024 Invited session organizer and chair, Advances in Bayesian modeling with latent variables, Joint Statistical Meeting, Portland, OR, USA
- Jul 2024 Invited session organizer, Bayesian statistical demography, ISBA World Meetings, Venice, Italy
- Jun 2023 Invited session organizer, Novel statistical methods for data collection and integration, Annual Meeting of the WNAR/IMS, Anchorage, AK, USA
- Jun 2023 Session co-organizer and chair, Small area estimation in public health, ICSA Applied Statistics Symposium, Ann Arbor, MI, USA
- Aug 2022 Topic-contributed session organizer, Statistical methods for discovering latent structures in high dimensional and complex data, Joint Statistical Meeting, Washington DC, USA
- Jun 2022 Invited session organizer, Latent variable models in high-dimensional data, ISBA World Meetings, Montreal, Canada
- Aug 2021 Topic-contributed session organizer and chair, Statistical methods for high dimensional data in healthcare and medical research, Joint Statistical Meeting, Online
- Dec 2020 Invited session organizer, Bridging the gap between complex data and public health policies: methods and applications, ICSA Applied Statistics Symposium, Online
- Aug 2020 Session chair, Frontiers in Bayesian computing, Joint Statistical Meeting, Online
- Mar 2020 Invited session organizer, Recent advances in Bayesian methods for spatial-temporal processes, ENAR Spring meeting, Online
- Aug 2019 Topic-contributed session organizer and chair, Statistical advances in population research in the developing world, Joint Statistical Meeting, Denver, CO, USA
- May 2019 Invited session organizer, Statistical tools for addressing the opioid epidemic, New England Statistical Symposium, Hartford, CT, USA
- Aug 2018 Session chair, Bayesian generalized linear models for medicine, Joint Statistical Meeting, Vancouver, BC, Canada

## **Memberships or Activities in Professional Associations**

- 2023 – Member: Population Association of America
- 2021 – 2022 Local organizing committee: O’Bayes 2022
- 2022 – Member: Eastern North American Region International Biometric Society
- 2018 – Member: Institute of Mathematical Statistics
- 2018 – Member: International Union for the Scientific Study of Population
- 2015 – Member: International Society for Bayesian Analysis
- 2014 – Member: International Chinese Statistical Association
- 2014 – Member: American Statistical Association
- 2016 – 2018 Moderator: Statistics in the Community (StatCom), University of Washington

## **Consulting**

- 2019 Centers for Disease Control and Prevention (CDC), Atlanta, GA, USA
- 2018 Vital Strategies, New York, NY, USA
- 2018 CHAMPS Network, Emory Global Health Institute, GA, USA
- 2017 Vital Strategies, New York, NY, USA

## **Journal Referees**

- 2023 – 2024 Journal of the American Statistical Association (Review). Biostatistics. Statistics in Medicine. Demography. npj Women’s Health. Globalization and Health. PNAS.
- 2022 – 2023 Annals of Applied Statistics. JMIR Public Health and Surveillance. Stat. Epidemiology (2 times). Journal of Statistical Software. Journal of Statistical Theory and Practice.
- 2021 – 2022 Annals of Applied Statistics (2 times). Statistics in Medicine. Statistica Sinica. Statistics and Probability Letters. BMC Medical Informatics and Decision Making. PNAS. Observational Studies. PLoS One. American Journal of Tropical Medicine & Hygiene.
- 2020 – 2021 Annals of Applied Statistics. Journal of the American Statistical Association (Applications & Case Studies). Journal of Computational and Graphical Statistics. Statistica Sinica. International Statistical Review. European Journal of Pure and Applied Mathematics. Sociological Methodology. PLoS One. PLoS Medicine. Scientific Data. Nature. Nature Communication.
- 2019 – 2020 Journal of Computational and Graphical Statistics (2 times). Canadian Journal of Statistics. Transactions on Signal Processing. Statistical Communications in Infectious Diseases. Biometrical Journal. Social Science & Medicine. Social Epidemiology. Public Health Reports.
- 2018 – 2019 Journal of the American Statistical Association (Theory & Methods). Biostatistics. International Journal of Drug Policy.
- 2017 – 2018 Statistical Analysis and Data Mining. Sociological Methodology.
- 2016 – 2017 Statistica Sinica.

## **Conference and Other Referees**

- 2024 Reviewer: The Section on Bayesian Statistical Science (SBSS) sponsored student paper competition

- 2023 Reviewer: International Conference on Artificial Intelligence and Statistics (AISTATS)
- 2022 Reviewer: The Section on Bayesian Statistical Science (SBSS) sponsored student paper competition
- 2021 Reviewer: a book proposal from Chapman & Hall CRC
- 2021 Reviewer: NeurIPS 2021 Workshop “Your Model is Wrong: Robustness and misspecification in probabilistic modeling”
- 2020 Reviewer: International Conference on Learning Representations (ICLR)
- 2020 Reviewer: International Conference on Machine Learning (ICML)
- 2020 Reviewer: The Section on Bayesian Statistical Science (SBSS) sponsored student paper competition
- 2020 Poster judge: 2020 ICSA Applied Statistics Symposium

## **Other Professional Activities**

- 2023 – Scientific Advisory Committee member of the pathology-informed Reference Death Archive, WHO.
- Aug 2023 Facilitator, 3-day Python openVA Training Workshop. Dar es Salaam, Tanzania.
- May 2021 Participant, 2-day WHO VA Reference Group workshop on “Revision of the 2016 WHO Verbal Autopsy instrument - Final phase”(Part II). Online
- Feb 2021 Participant, 2-day WHO VA Reference Group workshop on “Revision of the 2016 WHO Verbal Autopsy instrument - Final phase” (Part I). Online
- Nov 2020 Facilitator, 3-day WHO VA Reference Group Training Workshop on Item-Reduction Methods Related to WHO2016 Standard VA Instrument. Online
- Jul 2020 Participant, 4-day WHO VA Reference Group workshop on “Quantitative Methods and Results for Item-Reduction Related to the WHO2016 Standard VA Instrument”. Online
- May 2020 Facilitator, 4-day openVA Training Workshop for South Africa. Online
- Apr 2019 Facilitator, Joint UNICEF and WHO Regional Workshop on Child Mortality Estimation. Session on “Methods for subnational estimation of child mortality”, Dead Sea, Jordan
- Nov 2018 Facilitator, one-week Training of Trainers Workshop on “VA data quality review and COD assignment”, Columbus, OH, USA

## **University Service**

### **Service to the University**

- 2023 Member of the executive committee for Global and Community Health program

### **Service to the Division**

- 2023 Baskin and Dissertation-Year Fellowship Award review panel
- 2021 Baskin and Dissertation-Year Fellowship Award review panel

### **Service to the Department**

- 2020 – 2023 Statistics web coordinator

2023 – 2024 Graduate committee member  
Fall 2022 Statistics department seminar organizer  
Winter 2022 Graduate committee member  
Winter 2022 Statistics department seminar co-organizer  
Fall 2021 Search committee member for the Visiting Assistant Professor  
Spring 2021 Statistics department seminar co-organizer  
Winter 2021 Statistics department seminar organizer

## **Mentoring and Student Advising**

### **Doctoral Student Advisees**

In Progress Yu (Zoey) Zhu, Statistics, UCSC  
In Progress Toshiya Yoshida, Statistics, UCSC  
In Progress Sho Kawano, Statistics, UCSC, co-advising with Paul Parker  
In Progress Qianyu Dong, Statistics, UCSC

### **Service on Doctoral Student Qualifying Exam Committees**

Spring 2024 Andrew Le, Statistics, UCSC  
Spring 2024 Qi Wang, Statistics, UCSC  
Fall 2023 Meini Tang, Statistics, UCSC  
Spring 2023 Hyunjin Yun, Economics, UCSC  
Spring 2022 Shuangjie Zhang, Statistics, UCSC  
Spring 2022 Jizhou Kang, Statistics, UCSC  
Spring 2022 Hamidreza Habibi, Economics, UCSC  
Spring 2022 Ken Suzuki, Economics, UCSC  
Fall 2021 Jiaheng Wei, Computer Science, UCSC  
Fall 2021 Eungang (Peter) Choi, Sociology, Ohio State University

### **Service on Doctoral Student Dissertation Committees**

Summer 2024 Shuangjie Zhang, Statistics, UCSC  
Spring 2024 Jizhou Kang, Statistics, UCSC  
Spring 2024 Yunzhe Li, Statistics, UCSC  
Spring 2023 Eungang (Peter) Choi, Sociology, Ohio State University  
Fall 2021 Isabelle Grenier, Statistics, UCSC  
Winter 2021 Arthur Lui, Statistics, UCSC

### **Service as External Appraiser**

Spring 2022 Yuxiang (Alex) Gao, Ph.D. in Statistics, University of Toronto

## **Master Student Advisees**

Fall 2021 Gulzina Kuttubekova, Statistics, UCSC  
Spring 2021 Ricardo Figueroa-Ordaz, Statistics, UCSC

## **Service on Master Student Committees**

Spring 2021 Tracey Ramirez, Statistics, UCSC  
Spring 2021 Clayton Olsen, Statistics, UCSC

## **Academic Advising**

2023 – 2024 Yongqi Chen, Statistics, UCSC  
2021 – 2022 Seokjun Choi, Statistics, UCSC  
2020 – 2021 Yu (Zoey) Zhu, Statistics, UCSC

## **Other Graduate Student Researcher Mentoring**

2023 – 2024 Ewan Whittaker-Walker, Microbiology, Environmental Toxicology, UCSC

## **Teaching**

### **Courses taught at University of California Santa Cruz**

Winter 2024 STAT 7 Statistical Methods for the Biological, Environmental, and Health Sciences  
Enrollment: 155; Type: Undergraduate  
Fall 2023 STAT 80B The Art of Data Visualization  
Enrollment: 42; Type: Undergraduate  
Spring 2023 STAT 207 Intermediate Bayesian Statistical Modeling  
Enrollment: 4; Type: Graduate  
Winter 2023 STAT 131 Introduction to Probability Theory  
Enrollment: 69; Type: Undergraduate  
Fall 2022 STAT 227 Statistical Learning and High Dimensional Data Analysis  
Enrollment: 12; Type: Graduate  
Spring 2022 STAT 207 Intermediate Bayesian Statistical Modeling  
Enrollment: 7; Type: Graduate  
Fall 2021 STAT 7 Statistical Methods for the Biological, Environmental, and Health Sciences  
Enrollment: 203; Type: Undergraduate  
Spring 2021 STAT 227 Statistical Learning and High Dimensional Data Analysis  
Enrollment: 7; Type: Graduate  
Winter 2021 STAT 205 Introduction to Classical Statistical Learning  
Enrollment: 2; Type: Graduate

### **Courses taught at the University of Washington**

- Summer 2017 **Instructor**, STAT 394 Probability I  
Enrollment: 39; Type: Undergraduate
- Spring 2017 **Teaching Assistant**, STAT 435 Introduction to Statistical Machine Learning  
Enrollment: 32; Type: Undergraduate
- Winter 2017 **Teaching Assistant**, STAT 390 Statistical Methods in Engineering and Science  
Enrollment: 61; Type: Undergraduate

### Short Courses

- Apr 2020 **Co-Instructor**, 1-day short course on “Bayesian Small Area Estimation using complex survey data”, Population Association of America Annual Meeting, Washington D.C., USA  
(*Canceled due to COVID-19*)
- Oct 2019 **Co-Instructor**, Online lecture series on “Bayesian Subnational Estimation using Complex Survey Data”, Available at [link to videos \(YouTube\)](#)
- Jul 2018 **Co-Instructor**, 2-day short course on “Bayesian Small Area Estimation using complex survey data”, Asian Population Association Conference, Shanghai, China  
Enrollment: 30
- Apr 2018 **Co-Instructor**, 2-day short course on “Bayesian Small Area Estimation using complex survey data”, Population Association of America Annual Meeting, Denver, CO, USA  
Enrollment: 30

### Guest Lectures

- Fall 2023 STAT 200 Research and Teaching in Statistics, University of California, Santa Cruz
- Fall 2022 STAT 200 Research and Teaching in Statistics, University of California, Santa Cruz
- Fall 2021 SOCIOL 7753 Introduction to Demographic Analysis, Ohio State University
- Fall 2021 STAT 200 Research and Teaching in Statistics, University of California, Santa Cruz
- Fall 2020 STAT 200 Research and Teaching in Statistics, University of California, Santa Cruz
- Spring 2018 STAT 221 Statistical Concepts and Methods for Social Sciences, University of Washington
- Fall 2017 STAT 390 Statistical Methods in Engineering and Science, University of Washington